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# PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional): 008895-0314113

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

on _____

Signature _____

Typed or printed name _____

| Application Number | Filed |
|---|---|
| 10/518,695 | September 20, 2005 |
| **First Named Inventor** | |
| GOSSE BOXHOORN | |
| **Art Unit** | **Examiner** |
| 1795 | MCDONALD, Rodney G. |

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

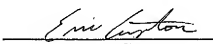
This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

~~Note: No more than five (5) pages may be provided.~~

I am the

- [ ] applicant/inventor.
- [ ] assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- [X] attorney or agent of record. Registration number: 54,806
- [ ] attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____



Signature

Eric B. Compton

Typed or printed name

703.770.7721

Telephone number

February 19, 2009

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

[X] *Total of 1 forms are submitted.

A. ATTACHMENT SHEETS TO PRE-APPEAL BRIEF CONFERENCE REQUEST

Appellant hereby requests that a panel of examiners formally review the legal and factual basis of the rejections in the above-identified application prior to the filing of an appeal brief. The outstanding rejections (now on appeal by virtue of the concurrently filed Notice of Appeal) are clearly improper based both upon errors in facts and the omission of essential elements required to establish a *prima facie* rejection (i.e., the prior art references fail to disclose or render obvious all the recited claim features).

APPEALED REJECTIONS

Appellant is appealing:

I. The rejection of claims 51-55, 57, 66, 68, 71, 77, 79, 80, 81, 82 and 83 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. 4,871,580 to Schram *et al.* ("Schram") in view of U.S. 5,559,065 to Lauth *et al.* ( "Lauth").

II. The rejection of claims 56, 58, 59,63, 64, 65, 70, 72 and 73 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Schram and Lauth and further in view of Canadian Patent Application Publication No. CA 2,297,543 to Loch *et al.* ("Loch").

III. The rejection of claims 74-76 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Schram, Lauth and Loch and further in view of U.S. Patent No. 4,536,482 to Carcia ("Carcia").

IV. The rejection of clams 60-62, 67 and 78 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Schram and Lauth and further in view of Carcia.

V. The rejection of claims 69 and 70 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Schram, Lauth and Loch and further in view of U.S. Patent No.3,969,082 to Cairns *et al.* ("Cairns").

ARGUMENTS FOR TRAVERSAL

I. **Claim 51 is patentable over Schram and Lauth.**

Independent claim 51 recites a method for manufacturing a mixed layer comprising, *inter alia*, the features of:

introducing ***a first deposition material*** in the plasma;

> depositing the ***first deposition material on the substrate*** under the influence of the plasma;
>
> * * *
>
> ***contacting the plasma with the at least one sputtering electrode to sputter the substrate with the second deposition material*** of the at least one electrode for depositing ***the second deposition material simultaneously with the first deposition material on the substrate.***
>
> [***Emphasis added***].

Neither Schram nor Lauth, either alone or in combination, teach or otherwise render obvious *at least* the above-emphasized features of independent claim 51.

**A. Schram and Lauth do not teach or otherwise render obvious first and second deposition materials, nor simultaneously depositing first and second deposition materials on a substrate.**

The passages of Schram, which the Office Action refers to as allegedly teaching "a first deposition material" (i.e., Abstract, column 4, lines 64-68; column 5, lines 1-12), merely disclose a plasma generator 13 which is fed with a liquid or gas-like reactants via inlet 11 and a flushing gas fed via inlet 12 to produce a plasma-jet 8. The descriptions of the liquid and gas-like reactants and the flushing gas do not indicate that these substances form a deposition material on the substrate 9. [*See* Schram, col. 4, line 68 – col. 5 line 12]. Rather, it is the solid matter reactant of the cathode 6 that is made gas-like by sputtering and mixes with the plasma jet that appears to form the only deposition material on the substrate 9 in Scrham. [*See* Schram, col. 6, lines 61-65; col. 5, lines 34-38; claim 11]. Thus, the cited portions of Schram do not teach introducing a first deposition material in the plasma, much less simultaneously depositing two distinct deposition materials on a substrate, as claim 51 recites.

Further, even assuming, *arguendo*, that the Schram and Lauth are combinable (which Appellant does not concede), the cited portions of Lauth do not overcome the deficiencies of Schram. In particular, Lauth appears to disclose depositing a *single catalyst material*, such as $Pd_{33}Zr_{66}$ (Examples 1 and 2), $Cu_{70}Zr_{30}$ (Example 4) on a molding. [*See also* Lauth, Table; Abstract]. Thus, Lauth does not teach first and second deposition materials, as claim 51 requires.

For *at least* the foregoing reasons, the cited portions of Schram and/or Lauth do not teach or otherwise render obvious first and second deposition materials, nor simultaneously depositing first and second deposition materials onto a substrate. Accordingly, independent claim 51 is patentable over Schram, Lauth or a proper combination thereof.

**B. Schram and Lauth do not teach or otherwise render contacting the plasma with the at least one sputtering electrode to sputter the substrate with the second deposition material of the at least one electrode.**

Appellant submits that the cited portions of Schram do not teach "contacting the plasma with the at least one sputtering electrode to sputter the substrate with the second deposition material." Instead, the Office Action merely asserts that Schram teaches "[d]epositing at least a second deposition material on the substrate by at least a sputtering source." [Office Action, pg. 3]. This treatment of claim 51 is improper as it ignores the plain language of the claims.[1]

The Office Action contends that "... Fig. 1 of Appellant's disclosure is identical to or similar to Schram et al. 's apparatus and achieves the same affect [*sic*] that Appellant desires." [Office Action, pg. 11]. That figure, however, does not show what the Office asserts. In fact, Figure 1 of Schram (reproduced below) shows that the plasma-jet 8 does not contact the cathode 6. Just because Schram may deposit a deposition material by sputtering, it does not follow that Schram also teaches contacting the plasma with the at least one sputtering electrode to sputter the substrate with the deposition material.

Instead, Schram discloses that the reactant material of the cathode 8 (51) is made gas-like by ***applying a discharge voltage to the cathode***. [*See* Schram, col. 6, lines 61-65]. And it is only after the reactant material has been freed from the cathode 8 by the sputtering discharge that the reactant material is made gas-like and *mixes* with the plasma-jet 8. [*See* Schram, col. 6, lines 61-65; col. 5, lines 34-38]. In addition, as pointed out above, Schram does not teach first and second deposition materials simultaneously deposited on the substrate.

[1] "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

By contrast, Figure 1 of Appellant (reproduced below on the right) clearly shows the plasma-jet P contacting the sputtering electrode or cathode 6. It is the plasma jet physically contacting the cathode 6 which releases the electrode material B from the electrode 6. [*See* Appellant's Specification, pg. 20, lines 1-3]. Thus, both a first deposition material A and a second deposition material B may be simultaneously deposited on a substrate in a very uniform manner and a high deposition rate can be achieved. [*See* Appellant's Specification, pg. 20, lines 16-22]. That is not the case with Schram. Therefore, Appellant submits that the Office's conclusion the apparatus of Schram and the one claimed by Appellant are identical or similar is manifestly erroneous.

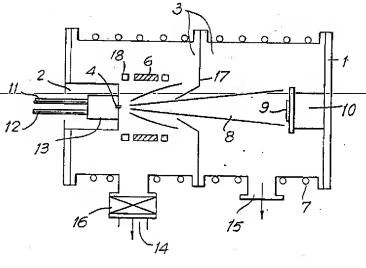



FIG. 1 of Schram

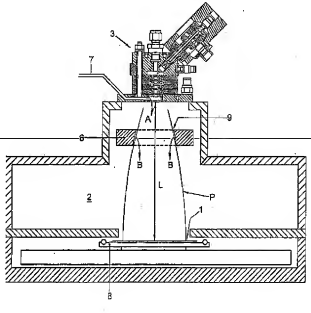



FIG. 1 of Appellant

Lauth does not overcome the deficiencies of Schram, either. For example, Lauth merely notes that the deposition materials may be coated using DC or RF sputtering "in a conventional manner by DC or RF generators." [Lauth, col. 2, lines 27-41]. However, the cited portions of Lauth (like the cited portions of Schram) do not teach contacting the plasma with the at least one sputtering electrode to sputter the substrate with the (second) deposition material of the at least one electrode.

For *at least* the foregoing reasons, the cited portions of Schram and Lauth do not teach or otherwise render obvious "contacting the plasma with the at least one sputtering electrode to sputter the substrate." Accordingly, independent claim 51 is patentable over Schram, Lauth or a proper combination thereof.

**II. Loch, Carcia, and/or Cairns do not overcome the above deficiencies either.**

Even assuming, *arguendo*, that it was proper to combine the teachings of Loch, Carcia, and/or Cairns with Schram and Lauth (which Appellant does not concede), the cited portions of Loch, Carcia, and Cairns do not overcome the deficiencies of Schram and Lauth, discussed above. The Office Action relies upon these reference to allegedly teach other dependent features of the claim invention (other than independent claim 51). Without acknowledging the propriety of theses rejections, Appellant submits these features are patentable for the same reasons as independent claim 51 and for the additional features the claims recite individually.[2]

## CONCLUSION

Therefore, it is respectfully requested that the panel return a decision concurring with Appellant's position and eliminating the need to file an appeal brief because there are clear legal and/or factual deficiencies in the appealed rejections. Thus, all pending claims 51-83 are allowable.

Respectfully submitted,

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[2] If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).